

ABSTRACT OF THE DISCLOSURE

SCANNING AN ALLOWED VALUE INTO A GROUP OF LATCHES

1 During scan testing of logical and memory circuits, it is important to
 2 prevent a scan test error resulting from simultaneous switching of the
 3 values within chip logic. Scan testing, however, encompasses rapidly
 4 scanning in values into a register to detect if the register is properly
 5 functioning. A circuit is disclosed which looks at the $n-1$ values within the
 6 register and determines if the next scan in value would cause contention. If
 7 so, that value is blocked until the next scan in value would not cause
 8 contention with the $n-1$ values within the register. Practicably, the
 9 invention will allow only allowed values into the register and may allow a
 10 "hot one" value into the register every $n-1$ clock cycle. Feedback of the
 11 values in the register is provided to a logical AND function to determine if a
 12 differing bit value will be allowed to scan into the register.